

Table 4.--Lithologic description of core from USBM-02A drill hole

Core Description	Interval ft (m)
Mudstone, dark-gray, no calcite cement-----	197.5-198.0 (60.2-60.4)
Shale, dark- and dusky-yellowish-brown, laminated, horizontal laminae except between 192.5-192.9 ft (58.7-58.8 m) where laminae are in swirls-----	198.0-201.4 (60.4-61.4)
Siltstone, medium-light-gray, salt-and-pepper appearance-----	201.4-202.1 (61.4-61.6)
Siltstone and interlaminated shale; siltstone, medium-light-gray; shale, olive-gray and minor amounts of brownish-gray-----	202.1-204.0 (61.6-62.2)
Siltstone, like unit at 201.4-202.1 ft (61.4-61.6 m)-----	204.0-204.4 (62.2-62.3)
No recovery-----	404.4-404.5 (62.3-62.3+)
Shale, dusky- to dark-yellowish-brown, thinly laminated, horizontal to swirly laminae; minor amounts of pale- yellowish-brown siltstone-----	204.5-211.3 (62.3+-64.4)
No recovery-----	211.3-212.5 (64.4-64.8)
Drilled with rock bit-----	212.5-217.5 (64.8-66.3)
Shale, medium-gray to yellowish-gray, very thin to thin bedding generally horizontal with some swirly patterns. Some black carbonaceous streaks parallel to bedding; a few thin beds of light-gray to medium-light-gray siltstone-----	217.5-240.3 (66.3-73.2)

Table 4.--Lithologic description of core from USBM-02A drill hole--Continued

Description	Interval ft (m)
Siltstone, light-gray, horizontally laminated with dark-yellowish-brown and dusky-brown shale, laminae in swirls between 245.5 and 248.0 ft (74.8-75.6 m)-----	240.3-251.3 (73.2-76.6)
No recovery-----	251.3-262.6 (76.6-80.0)
Sandstone, pale-brown and grayish-brown, fine-grained, laminated, scattered carbonaceous stringers; quartz grains <1 mm, rounded, no calcite cement-----	262.6-270.6 (80.0-82.5)
No recovery-----	270.6-272.7 (82.5-83.1)
Cement, from higher up in core hole-----	272.7-273.0 (83.1-83.2)
Sandstone, brownish-gray and light-gray to brownish-gray, fine-grained, beds range from 2 to 6 inches (5-15 cm) thick, wavy bedding dips up to 40°; thin stringers of carbonaceous material-----	273.0-281.0 (83.2-85.6)
Claystone, dark brown-----	281.0-282.2 (85.6-86.0)
Sandstone, light-gray and brownish-gray, friable-----	282.2-283.0 (86.0-86.3)
No recovery-----	283.0-288.0 (86.3-87.8)
Sandstone, like unit at 282.2-283.0 ft (86.0-86.3 m)-----	288.0-291.0 (87.8-88.7)
Laminated siltstone and marlstone; siltstone, grayish-brown; shale, pale-brown with dusky-yellow-brown streaks. Near horizontal laminae, calcite cement-----	291.0-303.0 (88.7-92.4)

Table 4.--Lithologic description of core from USBM-02A drill hole--Continued

Description	Interval ft (m)
Marlstone, dusky- and dark-yellowish-brown, laminated, discs easily-----	303.0-304.3 (92.4-92.8)
No recovery-----	304.3-307.0 (92.8-93.6)
Marlstone, pale-brown, grayish-orange-pink, and grayish-brown, wavy laminae dip about 20°, pyrite and calcite on fracture surface at 309 ft (94.2 m). Medium-gray sandstone in lower 6 in. (15 cm). Core shattered and pyritiferous in lower 2 ft (60 cm)-----	307.0-316.5 (93.6-96.5)
No recovery-----	316.5-320.7 (96.5-97.7)
Sandstone, brownish-gray, fine-grained, mostly rounded quartz grains-----	320.7-325.0 (97.7-99.1)
Marlstone, dark- and pale-yellowish-brown, laminated with minor amounts of light-grayish-brown siltstone, laminae horizontal to 10°. Pyrite on fracture surfaces. At about 328.5 ft (100.1 m) is a .1 inch (.3 cm) thick clay zone-----	325.0-329.8 (99.1-100.5)
Shale, light-olive-gray to olive-gray, very thinly laminated, laminae horizontal and <sup>intermittently</sup> occasionally indistinct. Minor thin laminae of yellowish-gray and dark-yellowish-gray marlstone. Light- to medium-light-gray, fine-grained, thin-bedded sandstone zones occur at 331 ft (100.9 m) and 340 ft (103.6 m). Pyrite disseminated in marlstone----	329.8-347.9 (100.5-106.0)

Table 4.--Lithologic description of core from USBM-02A drill hole--Continued

Description	Interval ft (m)
No recovery-----	347.9-350.9 (106.0-107.0)
Marlstone, olive-gray, finely interlaminated with yellowish-gray; horizontal laminae except for locally deformed laminae at 353 ft (107.6 m) and 358 ft (109.1 m). Pyrite on fracture surfaces-----	350.9-363.0 (107.0-110.6)
No recovery-----	363.0-364.3 (110.6-111.0)
Marlstone, dusky-brown, olive-gray, and light-olive-gray, thinly laminated, horizontal laminae except for distorted interval at 364.3-365.0 ft (111.1-111.3 m). Thin medium-light-gray, fine-grained sandstone beds at 369 ft (112.5 m) and 370 ft (112.8 m). Pyrite disseminated in marlstone-----	364.3-370.3 (111.0-112.9)
No recovery-----	370.3-377.2 (112.9-115.0)
Marlstone, dark- and dusky-yellowish-brown, laminated, laminae dip <sup>s</sup> ranges from 5° to 45°. Pale-yellowish-brown zone between 373.6 ft (113.9 m) and 374.5 ft (114.1 m). Pyrite disseminated throughout unit in 3-6 mm pods and streaks along laminae-----	377.2-383.2 (115.0-116.8)
No recovery-----	383.2-386.2 (116.8-117.7)



Table 4.--Lithologic description of core from USBM-02A drill hole--Continued

Description	Interval 'ft (m)
Marlstone, dark-yellowish-brown, laminated with minor amounts of dusky and pale yellowish brown. Core fractured with 45° fractures every 3-8 inches (8-20 cm). Pyrite on fracture surfaces-----	386.2-413.6 (117.7-126.1)
Marlstone, olive-gray and light-olive-gray, laminated, generally horizontal laminae with a few local deformations. Pyrite on fracture surfaces. Discs easily. Some pods and thin beds of medium-light-gray, fine-grained, noncalcareous sandstone-----	413.6-440.9 (126.1-134.4)
No recovery-----	440.9-444.5 (134.4-135.5)
Marlstone, like unit at 413.6-440.9 ft (126.1-134.4 m).	
No sandstone-----	444.5-451.0 (135.5-137.5)
No recovery-----	451.0-451.8 (137.5-137.7)
Marlstone, light-olive-gray, like unit at 444.5-451.0 ft (135.5-137.5 m)-----	451.8-463.0 (137.7-141.1)
No recovery-----	463.0-469.5 (141.1-143.1)
Marlstone, dusky-yellow and light-olive-gray, very finely laminated, laminae horizontal with a few local distortions, abundant pyrite on fracture surfaces-----	469.5-478.4 (143.1-145.8)

Table 4.--Lithologic description of core from USBM-02A drill hole--Continued

Description	Interval (ft (m))
No recovery-----	478.4-481.2 (145.8-146.7)
Marlstone, like unit at 469.5-478.4 ft (143.1-145.8 m), with some thin beds of medium-light-gray, fine-grained sandstone-----	481.2-487.2 (146.7-148.5)
No recovery-----	487.2-493.7 (148.5-150.5)
Marlstone, dark-yellowish-brown, laminated with dusky and pale yellowish brown, laminae are wavy and contorted. Very thinly laminated .04 ft (1 cm) bed of carbonaceous material at 495.3 ft (151.0 m). Pyrite on fracture surfaces. Tiny flakes and stringers of carbonaceous material from 494.6 to 499.0 ft (150.8 to 152.1 m)-----	493.7-503.4 (150.5-153.4)
No recovery-----	503.4-505.5 (153.4-154.1)
Marlstone, like unit at 493.7-503.4 ft (150.5-153.4 m)-----	505.5-512.2 (154.1-156.1)
No recovery-----	512.2-515.8 (156.1-157.2)
Marlstone, pale-yellowish-brown, interlaminated with dark yellowish brown. Two thin laminae of oil shale-----	515.8-517.0 (157.2-157.6)
Sandstone, dark-yellowish-brown, very fine grained, well sorted; calcareous cement, contains pods of light- gray fine-grained sandstone with calcareous stringers-----	517.0-518.5 (157.6-158.0)

Table 4.--Lithologic description of core from USBM-02A drill hole--Continued

Description	Interval ft (m)
Marlstone, dark-yellowish-brown laminated with minor amounts of dusky-yellowish-brown marlstone and fine-grained sandstone, grades downward to mostly sandstone starting at 521 ft (158.8 m). Wavy and contorted laminae in 518-521 ft (157.9-158.8 m) interval-----	518.5-523.0 (158.0-159.4)
No recovery-----	523.0-528.2 (159.4-161.0)
Sandstone, laminated with pale- to grayish-brown marlstone and minor dusky-yellowish-brown oil shale. Laminae dip from 20° to horizontal. Pale yellowish brown tuffaceous layer .05 ft (2 cm) thick at 528.6 ft (161.1 m)-----	528.2-530.8 (161.0-161.8)
No recovery-----	530.8-534.0 (161.8-162.8)
Oil shale, olive-gray and light-olive-gray interlaminated, laminae horizontal. Light-gray to medium-light-gray fine-grained sandstone layer .1 ft thick at 535.0 ft (163.1 m)-----	534.0-535.0 (162.8-163.1)
Marlstone, dark- to dusky-yellowish-brown, very thin horizontal laminae, brittle rock. Sandstone layer like above at 535.6 ft (163.3 m)-----	535.0-537.3 (163.1-163.8)
Oil shale, like unit at 534.0-535.0 <sup>ft</sup> (162.8-163.1 m)-----	537.3-538.0 (163.8-164.0)

Table 4.--Lithologic description of core from USBM-02A drill hole--Continued

Description	Interval ft (m)
Marlstone, like unit at 535.0-537.3 ft (163.1-163.8 m).	
Sandstone layers at 538.1 ft (164.0 m) and 541.0 ft (164.9 m)-----	538.0-545.2 (164.0-166.2)
No recovery-----	545.2-553.6 (166.2-168.7)
Oil shale, dusky-yellowish-brown and moderate-olive-brown, thinly interlaminated with minor amounts of light-olive- gray and dark-yellowish marlstone to 560 ft (170.7 m).	
Below 560 ft (170.7 m) marlstone is predominant over oil shale-----	553.6-563.3 (168.7-171.7)
No recovery-----	563.3-568.5 (171.7-173.3)
Marlstone, light-olive-gray, olive-gray, and pale-yellowish- brown, thinly laminated, discs easily. Dark-yellowish- brown, thinly laminated oil shale .2 ft (6 cm) thick at 573.5 ft (174.8 m)-----	568.5-574.5 (173.3-175.1)
No recovery-----	574.5-578.2 (175.1-176.2)
Marlstone, light-olive-gray and olive-gray, thinly laminated, horizontal laminae, incompetent rock-----	578.2-584.0 (176.2-178.0)
No recovery-----	584.0-588.6 (178.0-179.4)

Table 4.--Lithologic description of core from USBM-02A drill hole--Continued

Description	Interval (ft (m))
Marlstone and oil shale interlaminated, color ranges from pale-yellowish-brown to dusky-yellowish-brown, marlstone is lighter shades. Core broken and disced, footages approximate; laminae range from paper thin to 1 inch (3 cm). Tuff(?) layers 0.5 inch (1 cm) thick at 592 ft (180.4 m), 594 ft (181.1 m), and 595 ft (181.4 m)-----	588.6-598.7 (179.4-182.5)
Sandstone and interlaminated marlstone. Sandstone is pale-yellowish-brown, fine-grained, noncalcareous. Marlstone like unit above-----	598.7-600.7 (182.5-183.1)
No recovery-----	600.7-612.8 (183.1-186.8)
Marlstone, dark-yellowish-brown, laminated-----	612.8-613.0 (186.8-186.8+)
Sandstone, pale-yellowish-brown, fine-grained, calcareous cement. Minor laminae of dusky- and dark-yellowish-brown marlstone and oil shale. Pyrite on fracture surfaces-----	613.0-615.8 (186.8+-187.7)
Sandstone, like unit above-----	615.8-619.5 (187.7-188.8)
Sandstone and marlstone, like unit at 613.0-615.8 ft (186.8+-187.7 m)-----	619.5-622.9 (188.8-189.9)
Siltstone, pale-yellowish-brown, calcite cement-----	622.9-626.0 (189.9-190.8)
No recovery-----	626.0-639.8 (190.8-195.0)

Table 4.--Lithologic description of core from USBM-02A drill hole--Continued

Description	Interval ft (m)
Marlstone, dark-yellowish-brown, interlaminated and bedded with pale-yellowish-brown marlstone and pale-brown to pale-yellowish-brown fine-grained sandstone. Laminae from paper thin to 1 inch (3 cm), beds up to 5 inches (13 cm) thick-----	639.8-647.2 (195.0-197.3)
Oil shale, dusky-yellowish-brown, laminated-----	647.2-647.9 (197.3-197.5)
Laminated marlstone and sandstone, like unit at 639.8-647.2 ft (195.0-197.3 m), stringers of oil shale-----	647.9-655.8 (197.5-199.9)
Oil shale, like unit at 647.2-647.9 ft (197.3-197.5 m)-----	655.8-657.3 (199.9-200.3)
Marlstone, dark-yellowish-brown, laminated with pale- yellowish-brown marlstone; minor oil shale laminae between 657.3-658.0 ft (200.3-200.6 m) and 665.0-665.2 ft (202.7-202.8 m). Pale-yellowish-brown sandstone from 668.1 to 669.2 ft (203.6-204.0 m). Pyrite on fracture surfaces-----	657.3-676.7 (200.3-206.3)
.No recovery-----	676.7-682.2 (206.3-207.9)
Marlstone, like unit at 657.3-676.7 ft (200.3-206.3). Pale- yellowish-brown, fine-grained sandstone at 682.5-683.0 (208.0-208.2), 684.9-685.6 (208.8-209.0), and 698.8- 700.0 ft (213.0-213.4 m). Minor laminated shale in sandstone portion. Pyrite on fracture surfaces-----	682.2-707.5 (207.9-215.6)

Table 4.--Lithologic description of core from USBM-02A drill hole--Continued

Description	Interval ft (m)
No recovery-----	707.5-712.2 (215.6-217.1)
Marlstone, dark-yellowish-brown, laminated with minor dusky- yellowish-brown oil shale in upper half. Lower half is oil shale with minor marlstone-----	712.2-720.2 (217.1-219.5)
Siltstone, grayish-red, no calcite cement. Thin laminae of marlstone at 720.6 ft (219.6 m)-----	720.2-720.9 (219.5-219.7)
Oil shale, dusky-yellowish-brown, laminated. Tuff(?) beds at 729.9 ft (222.5 m) and 730.2 ft (222.6 m)-----	720.9-733.1 (219.7-223.4)
Oil shale, dusky- and dark-yellowish-brown, laminations horizontal-----	733.1-739.0 (223.4-225.2)
Sandstone, reddish-brown, fine-grained, calcite cement-----	739.0-740.3 (225.2-225.6)
Oil shale, like unit at 733.1-739.0 ft (223.4-225.2 m)-----	740.3-743.7 (225.6-226.7)
No recovery-----	743.7-750.7 (226.7-228.8)
Oil shale, dusky-yellowish-brown interlaminated with minor amounts of dark-yellowish-brown. Laminae horizontal-----	750.7-759.0 (228.8-231.3)
No recovery-----	759.0-772.1 (231.3-235.3)

Table 4.--Lithologic description of core from USBM-02A drill hole--Continued

Description	Interval 'ft (m)
Oil shale, like unit at 750.7-759.0 ft (228.8-231.3 m). Minor laminae of yellowish-gray marlstone. Very fine-grained pale-yellowish-brown sandstone at 772.3-773.0 ft (235.4-235.6 m). Vugs in middle portion of unit. Minor amount of pyrite on fracture surfaces-----	772.1-781.0 (238.0-239.6)
No recovery-----	781.0-786.0 (238.0-239.6)
Oil shale, dusky-yellowish-brown, thinly laminated with dark-yellowish-brown marlstone, laminae horizontal, small amount of calcite on fracture surfaces-----	786.0-792.7 (239.6-241.6)
No recovery-----	792.7-796.0 (241.6-242.6)
Oil shale and marlstone, like unit at 786.0-792.7 ft (239.6-241.6 m)-----	796.0-803.0 (242.6-244.8)
No recovery-----	803.0-809.0 (244.8-246.6)
Oil shale and marlstone, like unit at 786.0-792.7 ft (239.6-241.6 m). Laminae paper thin in oil shale. Shattered zones scattered throughout unit. Conglomerate containing shale fragments and rounded quartz grains at 814.7-815.0 ft (248.3-248.4 m). Sandy conglomerate containing white mineral fragments at 822.3-822.4 ft (250.6-250.7 m)-----	809.0-830.4 (246.6-253.1)
No recovery-----	830.4-831.8 (253.1-253.5)



Table 4.--Lithologic description of core from USBM-02A drill hole--Continued

Description	Interval (ft (m))
Oil shale, dusky-yellowish-brown, laminated and interbedded with dark-yellowish-brown siltstone. Calcite cement in siltstone and on fracture surfaces in oil shale. Laminae and beds range from .03 ft (.9 cm) to .3 ft (9 cm)-----	831.8-849.7 (253.5-259.0)
No recovery-----	849.7-852.8 (259.0-259.9)
Oil shale, dusky-yellowish-brown, laminated-----	852.8-853.8 (259.9-260.2)
Marlstone, dark-yellowish-brown, laminated with pale brown-----	853.8-854.4 (260.2-260.4)
Siltstone, grayish-brown-----	854.4-854.5 (260.4-260.5)
Marlstone, dark- to pale-yellowish-brown, laminated-----	854.5-855.5 (260.5-260.8)
Siltstone, like unit at 854.4-854.5 ft (260.4-260.5 m)-----	855.5-855.7 (260.8-260.8+)
Oil shale, dusky- to pale-yellowish-brown, laminated, laminae range from paper thin to 1 inch (3 cm), dips 10°. Discing of thinner laminae. Calcite heals fractures, minor amount of pyrite on open fractures-----	855.7-866.2 (260.8+-264.0)
No recovery-----	866.2-870.6 (264.0-265.4)
Oil shale, dusky-yellowish-brown, interlaminated and inter- bedded with siltstone and minor amounts of light-brown marlstone. Minor amount of calcite on fracture surfaces. Core shattered-----	870.6-878.5 (265.4-267.8)

Table 4.--Lithologic description of core from USBM-02A drill hole--Continued

Description	Interval 'ft (m)
No recovery-----	878.5-882.8 (267.8-269.1)
Oil shale, dusky-yellowish-brown, laminated-----	882.8-883.8 (269.1-269.4)
Siltstone, pale-yellowish-brown, calcite cement-----	883.8-885.7 (269.4-270.0)
Oil shale and siltstone, like above two units. Minor amounts of pyrite and calcite on fracture surfaces-----	885.7-887.6 (270.0-270.5)
No recovery-----	887.6-892.1 (270.5-271.9)
Oil shale, dusky-yellowish-brown, interlaminated with grayish-orange siltstone. Calcite cement in siltstone----	892.1-898.2 (271.9-273.8)
Oil shale, pale- and dark-yellowish-brown. Very thin beds of siltstone at 914.8, 915.0, and 915.6 ft (278.8, 278.9, and 279.1 m). Thin unit of oil shale near middle of unit discs easily-----	898.2-917.0 (273.8-279.5)
No recovery-----	917.0-921.3 (279.5-280.8)
Oil shale, dusky- to dark-yellowish-brown, laminae dip 0-10 <sup>0</sup> . A few laminae of dark- to pale-yellowish-brown marlstone in upper 3 ft (.9 m) and at 931.4 ft (283.9 m). Tuff(?) layer .04 ft (1.2 cm) thick at 934.7 ft (284.9 m)-----	921.3-948.2 (280.8-289.0)
No recovery-----	948.2-951.3 (289.0-290.0)

Table 4.--Lithologic description of core from USBM-02A drill hole--Continued

Description	Interval 'ft (m)
Oil shale, dusky-yellowish-brown with minor laminae of dark-yellowish-brown. Minor discing, shattered core and collapse breccia-----	951.3-971.2 (290.0-296.0)
No recovery-----	971.2-975.5 (296.0-297.3)
Drilled with rock bit, no core-----	975.5-983.0 (297.3-299.6)
Oil shale, dusky-yellowish-gray and olive-black, very thinly laminated, unit contains minor amounts of dark-yellowish- brown laminae, stringers, and blebs of oil shale. Evidence of leaching at 984 and 991.2 ft (299.9 and 302.1 m). Minor amount of 1 cm diameter vugs throughout unit. Some oil shale platy and flaky. Calcite in joints at 983 and 992.5 ft (299.6 and 302.5 m). Pyrite in joint at 989.0 ft (301.4 m)-----	983.0-993.3 (299.6-302.8)
No recovery-----	993.3-997.3 (302.8-304.0)

Table 4.--Lithologic description of core from USBM-02A drill hole--Continued

Description	Interval ft (m)
Oil shale, dark- to dusky-yellowish-brown, with olive black in upper 18 ft (5.5 m), thin to very thin wavy laminae. Collapse breccias at 998.6-998.8 ft (304.4-304.4+ m), 1,002.5-1,002.6 ft (305.6-305.6+ m), 1,003.6-1,003.9 ft (305.9-308.5 m), 1,012.3-1,013.0 ft (308.5-308.8 m), 1,014.7-1,015.0 ft (309.3-309.4 m), 1,018.6-1,018.9 ft (310.5-310.6 m), 1,019.4-1,019.9 ft (310.7-310.9 m), 1,022.4-1,022.6 ft (311.6-311.7 m), 1,024.6-1,025.8 ft (312.3-312.7 m), 1,031.0-1,033.0 ft (314.2-314.9 m), and 1,055.6-1,056.5 ft (321.7-322.0 m). Calcite heals several fractures. Vugs ranging from pinhead to 2 inches (5 cm). Thin dolomite layer at 1,054.0-1,054.7 ft (321.3-321.5 m). Pyrite throughout unit. Some discing and shattering of rock-----	997.3-1,065.0 (304.0-324.6)
No recovery-----	1,065.0-1,076.4 (324.6-328.1)
Siltstone, interlaminated with oil shale and minor amount of marlstone, pale- to dusky-yellowish-brown. Collapse breccia at 1,077.1-1,078.8 ft (328.3-328.8 m) and 1,090.2-1,092.5 ft (332.3-333.0 m). Vugs up to 1 cm and pyrite throughout unit. Top of the R-6 zone is 1,080 ft (329.2 m)-----	1,076.4-1,092.5 (328.1-333.0)

Table 4.--Lithologic description of core from USBM-02A drill hole--Continued

Description	Interval (ft (m))
Oil shale, dusky-brown to dark-yellowish-brown, very thinly laminated. Collapse breccia at 1,090.0-1,095.5 ft (333.8-333.9 m). Vugs up to 2 inches (5 cm). Brittle core near bottom of unit-----	1,092.5-1,097.6 (333.0-334.5)
No recovery-----	1,097.6-1,100.0 (334.5-335.3)
Oil shale, dusky-brown to light-olive-gray, very thinly laminated. Thin beds of very pale orange tuff(?) throughout unit. Collapse breccia at 1,115.0-1,116.0 ft (339.9-340.2 m). Minor small vugs. Calcite on some fracture surfaces-----	1,100.0-1,116.0 (335.3-340.2)
No recovery-----	1,116.0-1,127.6 (340.2-343.7)
Oil shale, olive-black, very thinly laminated with minor grayish-olive. Collapse breccia at 1,133.0-1,134.0 ft (345.3-345.6 m) and 1,136.0-1,137.0 ft (346.3-346.6 m)----	1,127.6-1,137.5 (343.7-346.7)
No recovery-----	1,137.5-1,142.8 (346.7-348.3)
Oil shale, olive-black, thinly laminated with dark-yellowish-brown. Dark-yellowish-brown ash bed at 1,143.3-1,143.4 ft (348.4+ to 348.5 m). Vugs in lower half of unit. Laminae dip 5°-----	1,142.8-1,149.7 (348.3-350.4)

Table 4.--Lithologic description of core from USBM-02A drill hole--Continued

Description	Interval ft (m)
Oil shale, dark- to dusky-yellowish-brown, thinly laminated.	
A .02 ft (.6 cm) thick, medium-bluish-gray shale(?) at	
1,151.6 ft (351.0 m). Vugs throughout unit-----	1,149.7-1,156.0 (350.4-352.3)
Oil shale, like unit at 1,142.8-1,149.7 ft (348.3-350.4 m)-----	1,156.0-1,162.2 (352.3-354.2)
No recovery-----	1,162.2-1,167.1 (354.2-355.7)
Oil shale, olive-black, brownish-black, and dark-yellowish-	
brown, very thinly laminated, horizontal laminae. Dark-	
yellowish-brown, fine- to medium-grained ash beds at	
1,173.5-1,174.0 ft (357.7-357.8 m) and 1,182.2-1,181.4 ft	
(360.0-360.1 m). Collapse breccias throughout unit.	
Unit contains pods and lenses of pyrite-----	1,167.1-1,187.3 (355.7-361.9)
No recovery-----	1,187.3-1,194.5 (361.9-364.1)
Oil shale, dusky-yellowish-brown and dusky-brown, very thinly	
laminated with minor dark-yellowish-brown, laminae	
horizontal. Rock mostly shattered-----	1,194.5-1,201.8 (364.1-366.3)
No recovery-----	1,201.8-1,209.5 (366.3-368.7)
Oil shale, grayish-brown, thinly laminated with dusky-	
yellowish-brown-----	1,209.5-1,211.0 (368.7-369.1)
Marlstone, dark-yellowish-brown, calcareous-----	1,211.0-1,211.2 (369.1-369.2)

Table 4.--Lithologic description of core from USBM-02A drill hole--Continued

Description	Interval (ft (m))
Oil shale, grayish-brown, thinly laminated with moderate- brown, evidence of leaching-----	1,211.2-1,213.2 (369.2-369.8)
Oil shale, dark-yellowish-brown and dusky-yellowish-brown, minor evidence of leaching-----	1,213.2-1,220.0 (369.8-371.9)
No recovery-----	1,220.0-1,230.6 (371.9-375.1)
Oil shale, olive-black and light-olive gray, very thin horizontal laminae. Thin bed of grayish-orange fine- grained tuff(?) at 1,250.0 ft (381.0 m). Several leached zones less than 1 ft (30 cm) throughout unit. Minor amount of pyrite on fracture surfaces-----	1,230.6-1,252.3 (375.1-381.7)
No recovery-----	1,252.3-1,259.0 (381.7-383.7)
Oil shale, olive-black and brownish-black, with minor pale- yellowish-brown, very thin horizontal laminae. Leached zone from 1,267.9 to 1,271.0 ft (386.5-387.4 m) contains pods of calcite and pyrite up to 5 mm in size-----	1,259.0-1,271.0 (383.7-387.4)
No recovery. Bottom of R-6 zone at 1,275 ft (388.6 m)-----	1,271.0-1,281.3 (387.4-390.5)
Oil shale, pale-yellowish-brown, thinly laminated with dark- yellowish-brown. Medium-gray tuff bed .01 ft (.3 cm) thick at 1,282.6 ft (390.9 m). Vugs up to 1 inch (3 cm) in diameter, some filled with medium-gray material-----	1,281.3-1,283.9 (390.5-391.3)

Table 4.--Lithologic description of core from USBM-02A drill hole--Continued

Description	Interval (ft (m))
Oil shale, olive-black, thinly laminated-----	1,283.9-1,285.6 (391.3-391.9)
Oil shale, dark- to dusky-yellowish-brown, thinly laminated with minor amount of pale-yellowish-brown----	1,285.6-1,287.0 (391.9-392.3)
Oil shale, dark-yellowish-brown, thinly laminated, hackly fracture-----	1,287.0-1,287.4 (392.3-392.4)
Oil shale, olive-black, thinly laminated, discing, no leaching-----	1,287.4-1,289.6 (392.4-393.1)
Oil shale, pale- to dark-yellowish-brown, broken and ground-up rock-----	1,289.6-1,290.1 (393.1-393.2)
No recovery-----	1,290.1-1,293.4 (393.2-394.2)
Oil shale, dusky-yellowish-brown, bedded and laminated with pale-yellowish-brown. Moderate-yellowish-brown tuff(?) bed at top of core run. Laminae offset by reverse faulting .02 ft (.6 cm)-----	1,293.4-1,296.2 (394.2-395.1)
Oil shale, pale-yellowish-brown, laminated and bedded with grayish-orange, grades downward to medium gray and light-olive gray. Unit crumbly-----	1,296.2-1,301.2 (395.1-396.6)
Oil shale, olive-black, bedded with pale-yellowish-brown near top of unit. Vugs <.01 ft (.3 cm) in diameter-----	1,301.2-1,306.2 (396.6-398.1)



Table 4.--Lithologic description of core from USBM-02A drill hole--Continued

Description	Interval 'ft (m)
No recovery-----	1,306.2-1,307.8 (398.1-398.6)
Oil shale, dusky-yellowish-brown, laminated with light brown-----	1,307.8-1,308.8 (398.6-398.9)
Oil shale, pale- to dusky-yellowish-brown; contorted and faulted laminae and bedding-----	1,308.8-1,311.9 (398.9-399.9)
Oil shale, olive-black, thinly laminated-----	1,311.9-1,314.8 (399.9-400.8)
Oil shale, dusky-yellowish-brown and olive-black, laminated with light-brown siltstone containing calcite cement. Unit crumbly and broken, no exact depths for rock types-----	1,314.8-1,319.0 (400.8-402.0)
No recovery-----	1,319.0-1,325.1 (402.0-403.9)
Oil shale, brownish-black to light-olive-gray with leached zones of moderate-brown. Very thinly laminated to bedded. Calcite pods, 3 mm from 1,329.0 to 1,330.0 ft (405.4-406.3 m). Most of unit is leached to a platy soil-like shale, friable----	1,325.1-1,337.0 (403.9-407.5)
No recovery-----	1,337.0-1,338.1 (407.5-407.9)
Oil shale, like unit at 1,325.1-1,337.0 ft (403.9-407.5 m).	
Siltstone layer at 1,338.6-1,339.1 ft (408.0-408.2 m).	
Pyrite on laminae planes-----	1,338.1-1,342.6 (407.9-409.2)

Table 4.--Lithologic description of core from USBM-02A drill hole--Continued

Description	Interval 'ft (m)
No recovery-----	1,342.6-1,353.0 (409.2-412.4)
Oil shale, dusky- and pale-yellowish-brown, very thinly laminated. Entire unit is collapse breccia and platy leached oil shale, light-gray clay and fragments of oil shale, friable-----	1,353.0-1,358.7 (412.4-414.1)
No recovery-----	1,358.7-1,376.4 (414.1-419.5)
Oil shale, olive-gray, laminated-----	1,376.4-1,376.5 (419.5-419.6)
Oil shale, dark-yellowish-brown, interlaminated with minor pale yellowish brown-----	1,376.5-1,381.5 (419.6-421.1)
Oil shale, olive-gray interlaminated with minor light- brown and pale-yellowish-brown-----	1,381.5-1,386.1 (421.1-422.5)
Siltstone, pale-brown, poorly cemented with calcite-----	1,386.1-1,386.8 (422.5-422.7)
No recovery-----	1,386.8-1,391.0 (422.7-424.0)
Oil shale, olive-black, laminated, grades downward to dark-yellowish-brown. Vugs in upper part. Nahcolite filled vugs in lower part, 1,391.0-1,395.7 ft (424.0-425.4 m)-----	1,391.0-1,395.7 (424.0-425.4)
Nahcolite, moderate-brown, interbedded with minor dark- yellowish-brown oil shale-----	1,395.7-1,402.5 (425.4-427.5)

Table 4.--Lithologic description of core from USBM-02A drill hole--Continued

Description	Interval (ft (m))
Halite, interbedded with nahcolite-----	1,402.5-1,403.5 (427.5-427.8)
Oil shale, pale-brown with oblong vugs filled with nahcolite-----	1,403.5-1,404.1 (427.8-428.0)
Halite, interbedded with nahcolite-----	1,404.1-1,407.4 (428.0-429.0)
Oil shale, brownish-black grading downward to grayish- brown. Thin .1 to .2 ft (3-6 cm) layers of nahcolite at 1,407.5 (429.0), 1,408.8 (429.4), 1,409.4 (429.6), 1,410.1 (429.8), 1,410.6 (430.0), 1,414.6 (431.2), 1,416.4 (431.7), and 1,418.0 ft (432.2 m). Nahcolite rosettes at 1,417.4-1,417.8 (432.0-432.1) and 1,418.5-1,419.0 ft (432.4-432.5 m)-----	1,407.4-1,421.5 (429.0-433.3)
Oil shale, dusky-yellowish-brown and moderate-brown with minor, very thin laminae of pale yellowish brown-----	1,421.5-1,423.5 (433.3-433.9)
Nahcolite, pale-yellowish-brown, opaque, crystalline beds with halite at 1,431 (436.2) and 1,427.7-1,428.8 ft (435.2-435.5 m). Nahcolite rosettes up to 5 inches (13 cm) in diameter scattered throughout unit-----	1,423.5-1,432.0 (433.9-436.5)
Oil shale, like unit at 1,421.5-1,423.5 ft (433.3-433.9 m)--	1,432.0-1,451.0 (436.5-442.3)
Drilled with rock bit, no core-----	1,451.0-1,458.0 (442.3-444.4)

**Table 4.--Lithologic description of core from USBM-02A drill hole--Continued**

Description	Interval (ft (m))
Oil shale, dark- and dusky-yellowish-brown, very thinly laminated, nahcolite rosettes-----	1,458.0-1,459.0 (444.4-444.7)
Nahcolite, pale-yellowish-brown, bedded with moderate brown nahcolite rosettes-----	1,459.0-1,463.0 (444.7-445.9)
Oil shale and nahcolite rosettes like unit at 1,458.0-1,459.0 ft (444.4-444.7 m)-----	1,463.0-1,470.6 (445.9-448.2)
Nahcolite, like unit at 1,459.0-1,463.0 ft (444.7-445.9 m)--	1,470.6-1,472.6 (448.2-448.8)
Oil shale-----	1,472.6-1,473.0 (448.8-449.0)
Nahcolite rosettes-----	1,473.0-1,477.0 (449.0-450.2)
Oil shale, like unit at 1,458.0-1,459.0 ft (444.4-444.7 m).	
Nahcolite layers at 1,478.5 (450.6) and 1,479.4 ft (450.9 m)-----	1,477.0-1,481.0 (450.2-451.4)
Nahcolite rosettes-----	1,481.0-1,482.0 (451.4-451.7)
Oil shale-----	1,482.0-1,484.0 (451.7-452.3)
Nahcolite rosettes-----	1,484.0-1,486.0 (452.3-452.9)
Oil shale-----	1,486.0-1,488.0 (452.9-453.5)
Nahcolite, bedded-----	1,488.0-1,492.0 (453.5-454.8)

**Table 4.--Lithologic description of core from USBM-02A drill hole--Continued**

Description	Interval (ft (m))
Oil shale-----	1,492.0-1,504.0 (454.8-458.4)
Nahcolite, bedded-----	1,504.0-1,507.0 (458.4-459.3)
Halite-----	1,507.0-1,507.5 (459.3-459.5)
Oil shale-----	1,507.5-1,508.8 (459.5-459.9)
Nahcolite, bedded-----	1,508.8-1,511.0 (459.9-460.6)
Oil shale, with numerous vugs up to .7 ft (21 cm) filled	
with nahcolite-----	1,511.0-1,532.0 (460.6-467.0)
Nahcolite, moderate-yellowish-brown, bedded, opaque, finely	
crystalline-----	1,532.0-1,536.0 (467.0-468.2)
Oil shale, dark- and dusky-yellowish-brown, very thin	
horizontal laminae, numerous vugs up to .7 ft (21 cm)	
filled with opaque to translucent platy, crystalline,	
moderate-yellowish-brown nahcolite-----	1,536.0-1,545.0 (468.2-470.9)
Nahcolite, like unit at 1,532.0-1,536.0 ft (467.0-468.2 m)----	1,545.0-1,547.0 (470.9-471.5)
Oil shale, like unit at 1,536.0-1,545.0 ft (468.2-470.9 m)----	1,547.0-1,561.0 (471.5-475.8)
Nahcolite, like unit at 1,532.0-1,536.0 ft (467.0-468.2 m)----	1,561.0-1,562.0 (475.8-476.1)
Oil shale, like unit at 1,536.0-1,545.0 ft (468.2-470.9 m)----	1,562.0-1,566.0 (476.1-477.3)
Nahcolite, like unit at 1,532.0-1,536.0 ft (467.0-468.2 m)----	1,566.0-1,568.0 (477.3-477.9)

**Table 4.--Lithologic description of core from USBM-02A drill hole--Continued**

Description	Interval 'ft (m)
Oil shale, like unit at 1,536.0-1,545.0 ft (468.2-470.9 m)----	1,568.0-1,572.0 (477.9-479.1)
Oil shale, like unit at 1,536.0-1,545.0 ft (468.2-470.9 m).	
No vugs or nahcolite-----	1,572.0-1,576.9 (479.1-480.6)
No recovery-----	1,576.9-1,577.0 (480.6-480.7)
Oil shale, dusky-yellowish-brown and olive-black, very thin	
horizontal laminae-----	1,577.0-1,602.0 (480.7-488.3)
Nahcolite, dark-yellowish-brown, opaque, finely crystalline.	
Disseminated with oil shale in upper portion grading	
to bedded in lower portion-----	1,602.0-1,605.6 (488.3-489.4)
Nahcolite, dark-yellowish-brown, bedded, crystalline,	
opaque. Halite layer at 1,612.5 ft (491.5 m)-----	1,605.6-1,614.5 (489.4-492.1)
Halite, white, bedded, coarsely crystalline, opaque to	
translucent-----	1,614.5-1,620.0 (492.1-493.8)
Nahcolite, like unit at 1,605.6-1,614.5 ft (489.4-492.1 m)----	1,620.0-1,622.0 (493.8-494.4)
Halite, like unit at 1,614.5-1,620.0 ft (492.1-493.8 m)-----	1,622.0-1,626.0 (494.4-495.6)
Oil shale, dusky-yellowish-brown and moderate brown, very	
thinly laminated-----	1,626.0-1,632.0 (495.6-497.4)
Halite, like unit at 1,614.5-1,620.0 ft (492.1-493.8 m)-----	1,632.0-1,636.0 (497.4-498.7)

**Table 4.--Lithologic description of core from USBM-02A drill hole--Continued**

Description	Interval (ft (m))
Oil shale, moderate-brown and dusky-yellowish-brown, very thinly laminated. Halite and nahcolite in very thin beds throughout unit-----	1,636.0-1,645.0 (498.7-501.4)
Halite, white to brownish-gray, bedded, coarsely crystalline, transparent to opaque-----	1,645.0-1,649.4 (501.4-502.7)
Oil shale, like unit at 1,636.0-1,645.0 ft (498.7-501.4 m)---	1,649.4-1,651.0 (502.7-503.2)
Nahcolite, dark-yellowish-brown, bedded, finely crystalline, opaque-----	1,651.0-1,655.5 (503.2-504.6)
Halite, like unit at 1,645.0-1,649.4 ft (501.4-502.7 m)-----	1,655.5-1,660.5 (504.6-506.1)
Oil shale, like unit at 1,636.0-1,645.0 ft (498.7-501.4 m)---	1,660.5-1,666.2 (506.1-507.9)
Nahcolite, pale-yellowish-brown, bedded, opaque-----	1,666.2-1,668.0 (507.9-508.4)
Halite, white to dark-yellowish-brown, bedded, coarsely crystalline, opaque, with minor laminae of dusky- and dark-yellowish-brown oil shale-----	1,668.0-1,683.5 (508.4-513.1)
Nahcolite, like unit at 1,666.2-1,668.0 ft (507.9-508.4 m)---	1,683.5-1,686.5 (513.1-514.0)
Halite, like unit at 1,668.0-1,683.5 ft (508.4-513.1 m)-----	1,686.5-1,688.1 (514.0-514.5)
No recovery-----	1,688.1-1,694.0 (514.5-516.3)
Halite, white, coarsely crystalline-----	1,694.0-1,695.0 (516.3-516.6)

**Table 4.--Lithologic description of core from USBM-02A drill hole--Continued**

Description	Interval (ft (m))
Oil shale, olive-gray, light-olive-brown, and some dusky-yellowish-brown, thin horizontal laminae. Unit contains scattered nahcolite rosettes between 1,694 and 1,700 ft (516.3-518.2 m) and below 1,716 ft (523.0 m). Bedded, white to dark-yellowish-brown, crystalline nahcolite with oil shale between 1,702 and 1,711 ft (518.8-521.5 m). Calcitic concretions up to .08 ft (2.6 cm) throughout unit-----	1,695.0-1,732.0 (516.6-527.9)
Oil shale-----	1,732.0-1,738.0 (527.9-529.7)
Oil shale, olive-black and dusky-yellowish-brown, very thinly laminated. Scattered minor nahcolite beds and rosettes-----	1,738.0-1,762.5 (527.9-537.2)
Nahcolite, pale- and dark-yellowish-brown, thin bedded, finely crystalline, opaque-----	1,762.5-1,768.0 (537.2-538.9)
Oil shale, like unit at 1,738.0-1,762.5 (527.9-537.2 m)-----	1,768.0-1,782.0 (538.9-543.2)
Oil shale, with abundant moderate brown transparent to translucent nahcolite rosettes as large as 1.5 ft (45 cm) in diameter-----	1,782.0-1,788.0 (543.2-545.0)
Nahcolite, bedded, with abundant rosettes-----	1,788.0-1,792.0 (545.0-546.2)



**Table 4.--Lithologic description of core from USBM-02A drill hole--Continued**

Description	Interval (ft (m))
Oil shale and nahcolite rosettes like unit at 1,782.0-	
1,788.0 ft (543.2-545.0 m)-----	1,792.0-1,801.0 (546.2-548.9)
Nahcolite, bedded, with abundant rosettes-----	1,801.0-1,802.5 (548.9-549.4)
Oil shale, olive-gray, dusky-brown, and dusky-yellowish-	
brown with numerous dusky-yellowish-brown, opaque,	
crystalline nahcolite rosettes. Nahcolite content	
decreases below 1,842.0 ft (561.4 m)-----	1,802.5-1,870.5 (549.4-570.1)
No recovery-----	1,870.5-1,871.0 (570.1-570.3)
Oil shale, grayish-brown and dusky-brown with some dusky-	
yellowish-brown laminae. Thinly laminated, horizontal	
laminae with some minor distortions around nahcolite	
rosettes. Rosettes are moderate brown and brownish	
black, and scattered throughout unit. Fossiliferous	
zone from 1,888.0 to 1,891.0 ft (575.5-576.4 m)-----	1,871.0-1,899.9 (570.3-579.1)
Oil shale, grayish-brown and dusky-brown, thin laminated,	
blebby structure between 1,911.0 and 1,920.0 ft	
(582.7-585.2). Interbedded dusky-brown and moderate-	
brown, platy, crystalline nahcolite, beds range up	
to 1.8 ft (55 cm) thick-----	1,899.9-1,928.9 (579.1-587.9)

**Table 4.--Lithologic description of core from USBM-02A drill hole--Continued**

Description	Interval (ft (m))
Oil shale, olive-black and grayish-black, very thinly laminated, horizontal laminae. Scattered moderate-brown nahcolite rosettes up to 6 inches (15 cm) in diameter-----	1,928.9-1,938.0 (587.9-590.7)
Nahcolite, moderate-brown, thin- to thick-bedded-----	1,938.0-1,941.0 (587.9-591.6)
Oil shale, like unit at 1,928.9-1,938.0 ft (587.9-590.7 m)-	1,941.0-1,947.0 (591.6-593.4)
Oil shale, no nahcolite-----	1,947.0-1,954.0 (593.4-595.6)
Oil shale, like unit at 1,928.9-1,938.0 ft (587.9-590.7 m). Nahcolite content decreases downward-----	1,954.0-1,988.8 (595.6-606.2)
Oil shale, olive-gray, olive-black, and brownish-black, very thinly laminated, laminae horizontal. Unit contains some blebs and pods of yellowish-gray dolomite(?) at 2,000.0-2,004.0 ft (609.6-610.8 m)-----	1,988.8-2,009.6 (606.2-612.5)
No recovery-----	2,009.6-2,018.2 (612.5-615.1)
Oil shale, light-olive-gray, and pale- to dark-yellowish-brown, very thin to thin laminations generally horizontal with local distortion around nahcolite rosettes. Scattered rosettes, up to .3 ft (9 cm) in diameter, of dark- and dusky-yellowish-brown nahcolite. Numerous thin beds of nahcolite between 2,047.0 and 2,050.0 ft (623.9-624.8 m). Brecciated zone at	

**Table 4.—Lithologic description of core from USBM-02A drill hole--Continued**

Description	Interval ft (m)
2,058.7-2,059.5 ft (627.5-627.7 m). Trace of pyrite in unit-----	2,018.2-2,077.5 (615.1-633.2)
Oil shale, dusky-yellowish-brown, very thin laminae generally horizontal. Unit contains numerous rosettes of moderate-brown, platy, coarsely crystalline nahcolite up to 4 inches (10 cm) in diameter-----	2,077.5-2,084.0 (633.2-635.2)
Nahcolite, moderate-brown to dusky-yellowish-brown, finely crystalline, opaque, thin- to thick-bedded-----	2,084.0-2,103.0 (635.2-641.0)
Oil shale, like unit at 2,077.5-2,084.0 ft (633.2-635.2 m). Abundant nahcolite rosettes up to 3 inches (8 cm) with smaller ones containing pyrite-----	2,103.0-2,121.0 (641.0-646.5)
Oil shale, dusky-yellowish-brown, very thinly laminated-----	2,121.0-2,125.0 (646.5-647.7)
Nahcolite, like unit at 2,084.0-2,103.0 ft (635.2-641.0 m). Minor amount of pyrite-----	2,125.0-2,132.0 (647.7-649.8)
Oil shale, like unit at 2,121.0-2,125.0 ft (646.5-647.7 m)--	2,132.0-2,136.9 (649.8-651.3)
No recovery-----	2,136.9-2,137.1 (651.3-651.4)

**Table 4.--Lithologic description of core from USBM-02A drill hole--Continued**

Description	Interval (ft (m))
Oil shale, dusky- and dark-yellowish-brown, laminated, most laminae are horizontal with those at 2,149-2150 ft (655.0-655.3 m) dipping 10°. Rosettes of dusky- yellowish-brown, coarsely crystalline, platy, trans- lucent nahcolite up to 6 inches (15 cm) scattered throughout unit. Open joints at 2,152.0-2,153.0 ft (655.9-656.2 m)-----	2,137.1-2,166.0 (651.4-660.4)
Oil shale, dusky-yellowish-brown, dusky-brown, and light- olive-gray, thinly laminated, laminae are horizontal. No nahcolite. Calcite filled joints at 2,188 ft (666.9 m)-----	2,166.0-2,189.0 (660.4-667.2)
Nahcolite, olive-black and grayish-brown, fine crystalline; numerous thin beds with some light-olive-gray and dusky-brown oil shale laminae-----	2,189.0-2,195.7 (667.2-669.2)
Oil shale, dusky- to dark-yellowish-brown, thin laminated. Scattered brownish-black and dusky-brown, coarsely crystalline nahcolite rosettes-----	2,195.7-2,197.1 (669.2-669.7)
No recovery-----	2,197.1-2,198.1 (669.7-670.0)
Oil shale, like unit at 2,195.7-2,197.1 ft (669.2-669.7 m)---	2,198.1-2,211.6 (670.0-674.1)
Nahcolite, brownish-black and dusky-brown, interbedded with minor oil shale-----	2,211.6-2,214.6 (674.1-675.0)

**Table 4.--Lithologic description of core from USBM-02A drill hole--Continued**

Description	Interval (ft (m))
Oil shale, like unit at 2,195.7-2,197.1 ft (669.2-669.7 m)--	2,214.6-2,223.6 (675.0-677.8)
Nahcolite, like unit at 2,211.6-2,214.6 ft (674.1-675.0 m)--	2,223.6-2,224.6 (677.8-678.1)
Oil shale, like unit at 2,195.7-2,197.1 ft (669.2-669.7 m).	
Stringers and blebs of calcite at 2,235.6-2,237.6 ft	
(681.4-682.0 m)-----	2,224.6-2,253.6 (678.1-686.9)
Shale, medium-bluish-gray, laminated-----	2,253.6-2,256.6 (686.9-687.8)
Oil shale, dark- and dusky-yellowish-brown, very thinly	
laminated, laminae horizontal-----	2,256.6-2,267.0 (687.8-691.0)
Oil shale, like above with scattered nahcolite-----	2,267.0-2,291.0 (691.0-698.3)
Shale, medium-bluish-gray and dark-greenish-gray interbedded	
and laminated with minor dusky-yellowish-brown oil	
shale. Thin stringers of calcite at 2,296.8-2,297.2 ft	
(700.1-700.2 m). Core discs easily-----	2,291.0-2,301.5 (698.3-701.5)
Oil shale, like unit at 2,267.0-2,291.0 ft (691.0-698.3 m)--	2,301.5-2,312.4 (701.5-704.8)
No recovery-----	2,312.4-2,316.6 (704.8-706.1)

Table 4.--Lithologic description of core from USBM-02A drill hole--Continued

Description	Interval ft (m)
Oil shale, dusky- to dark-yellowish-brown, olive-gray and moderate-olive-brown, thinly laminated. Scattered .1 ft (3 cm) thick beds of olive-gray, soft siltstone with thicker beds at 2,358.0-2,358.7 (718.7-718.9) and 2,365.6-2,366.3 ft (721.0-721.2 m). Scattered stringers of soft, white crystalline calcite and some pyrite. Thin bed of black, soft shale covered with a film of yellow oil at 2,333.5 ft (711.3 m).	
Rock discs easily, brittle-----	2,316.6-2,369.5 (706.1-722.2)
Oil shale, olive-black and olive-gray, very thinly laminated, horizontal laminae. Some thin beds of medium-bluish-gray shale scattered throughout unit. Minor thin beds of light-olive-gray siltstone at 2,374.0 (723.6), 2,376.0 (724.2), and 2,378.0 ft (724.8 m). From 2,396.4 to 2,400.3 ft (730.4-731.6 m), rock is shattered. Rock discs readily-----	2,369.5-2,400.3 (722.2-731.6)
No recovery-----	2,400.3-2,401.8 (731.6-732.1)
Oil shale, dark- to dusky-yellowish-brown and dusky-brown, thinly laminated, laminae horizontal. Blebs of pale- to dark-yellowish-brown oil shale and dolomite(?).	
Rock discs easily-----	2,401.8-2,447.1 (732.1-745.9)

Table 4.--Lithologic description of core from USBM-02A drill hole--Continued

Description	Interval ft (m)
No recovery-----	2,447.1-2,453.1 (745.9-747.7)
Oil shale and shale, dusky-brown and dusky-yellowish-brown, thinly laminated, laminae horizontal. Silica crystals coat fracture surfaces at 2,467.1 ft (752.0 m). Below 2,460 ft (749.8 m) rock is mostly shale. Rock discs easily-----	2,453.1-2,499.3 (747.7-761.8)
No recovery-----	2,499.3-2,503.4 (761.8-763.0)
Oil shale and shale, olive-gray and dusky-yellowish-brown, thinly laminated, laminae are horizontal, some are indistinct. Pyrite disseminated throughout shales. Very thin layers of fine-grained, well-cemented, light colored sandstone at 2,525.0 (769.6), 2,528.2 (770.6), 2,531.7-2,533.0 (771.7-772.1), and 2,541.8 ft (774.7 m). Core is fractured and discs easily-----	2,503.4-2,555.4 (763.0-778.9)
No recovery-----	2,555.4-2,561.1 (778.9-780.6)
Shale, olive-gray, light-olive-gray, and some olive-black, thinly laminated, laminae horizontal. Fresh surfaces have waxy appearance. Brecciated zone at 2,602.0- 2,602.2 ft (793.1-793.2 m). Rock is brittle and discs easily-----	2,561.1-2,606.4 (780.6-794.4)

Table 4.--Lithologic description of core from USBM-02A drill hole--Continued

Description	Interval ft (m)
No recovery-----	2,606.4-2,619.9 (794.4-798.5)
Shale, black, conchoidal fractures. Grades downward to medium dark gray, silty shale at about 2,622.5 ft (799.3 m), and medium-dark-gray siltstone at about 2,624.0-2,652.0 ft (799.8-808.3 m). No calcareous cement in siltstone. At 2,652.0 ft (808.3 m) unit grades back to silty shale-----	2,619.9-2,656.5 (798.5-809.7)
Sandstone, medium-gray, salt-and-pepper texture, not very porous-----	2,656.5-2,659.6 (809.7-810.6)
Shale, dark-gray-----	2,659.6-2,660.0 (810.6-810.8)
Total depth-----	2,660.0 (810.8)